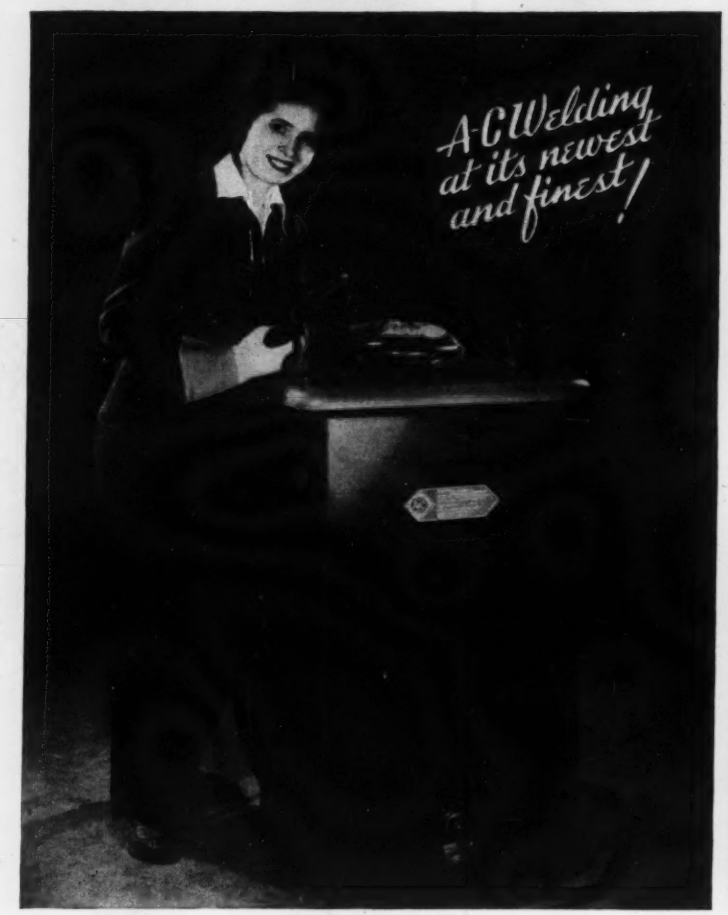
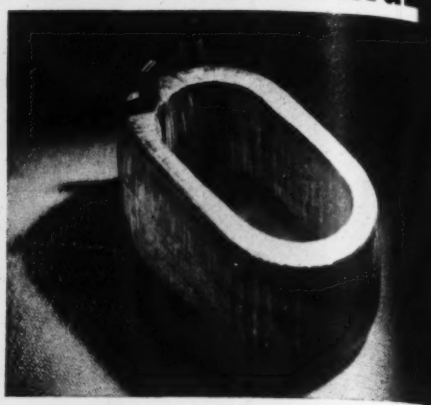
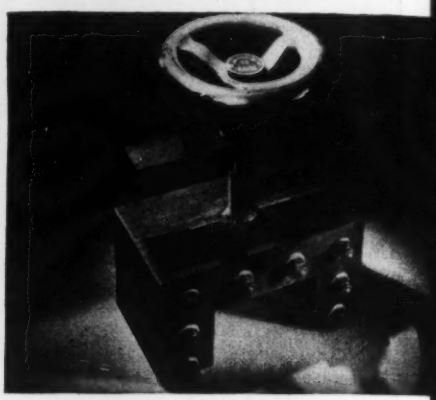
ENGINEERING NEWS-RECORD

AMPAC "400" GIVES YOU IDEA SIZE AND RANGE



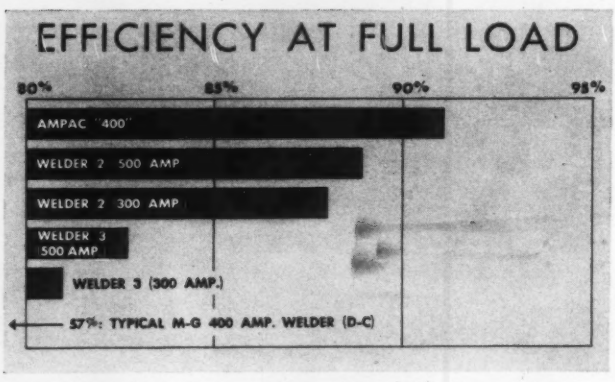


1 Top welder *engineering*, too, is incorporat into every Ampac. This compact reactor is efficient . . . cool-operating. Its spun-gl insulation is *flame-proof!*



2 Ampac gives you *all* a.c. welding advantages — including *no arc blow!* Wide 50-500 amp range provides capacity for *90%* of all welding needs! Simply designed and ruggedly constructed for gruelling wartime service. *Minimum* maintenance required!

3 Smooth one-inch movement of upper co covers entire welding range . . . in *seven tur* of control wheel. Result: less time for a *justment* — more time for *production!*



4 High welder efficiency means *decreased* power consumption — and therefore *lower power bills!* Compare Ampac's excellent rating against two largest selling a.c. welders and a typical d.c. unit. You *save* with Ampac! A 1678

GET THE FULL STORY on this great new welder from your nearby Ampac dealer or Allis-Chalmers district office. Learn about its exclusive patented circuit. Ask for bulletin B6302 . . . also B6241 on Ampac "200".

ALLIS-CHALMERS

MILWAUKEE, WISCONSIN

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • JUNE 8, 1944 • VOLUME 132 • NUMBER 23

Public relations program established by A.G.C.

Association also acts on labor problems that are getting more complex despite a sharp decline in construction—Postwar planning to be promoted.

Plans for a public relations and promotion program for the construction industry sponsored by the Associated General Contractors of America that have been simmering for several years were brought to a head at the spring meeting of the association's governing and advisory boards at Chicago, May 29 and 30. The Campbell-Ewald Company, national advertising agency, has been retained by the A.G.C., and Lyle Johnson of that firm has been assigned as full-time representative with headquarters in the Washington office.

Mr. Johnson presented a report to the meeting outlining the proposed program which includes among its objectives the public recognition of the indispensable position of the contractor in the nation's economy, the desirability of the contract method of construction and the need for preparing plans and specifications for postwar construction now. He pointed out that contractors are suffering from undirected and uncontrolled publicity rather than from lack of publicity. Lack of understanding and facts are responsible for the unfavorable publicity contractors have received for years, he said.

Manual to be published

The plan was well received by the 125 delegates and board members present at the meeting, including 58 chapter managers and secretaries. Many chapters and branches have been conducting public relations programs of their own. To assist them and to coordinate all such activities within the association, the agency will compile a public relations manual for the construction industry, the first of its kind.

Despite a big curtailment in construction volume, labor problems seem to be getting more complex on the jobs that are still under way, according to discussions that took up a major part of the meeting program. Great confusion exists between various acts, rulings and interpretations promulgated by the several agencies having jurisdiction over construction labor. The contractor is beset with conflicting regulations of the Bacon-Davis Act, the Secretary of Labor and the Wage Adjustment Board, the War Labor Board and the various international unions. He is helpless to hold onto key and office employees because of salary freezing rules, he has to violate some of the many regulations in order to work at all, according to many a complaint voiced at the meeting, with the hope his prison sentences will be minimized by a sympathetic judge.

The A.G.C. labor relations committee and J. D. Marshall, assistant managing director assigned to labor problems, are working hard to keep the members informed as to the latest rulings and to assist them in untangling their labor troubles.

One great help was a manual of A.G.C. labor relations reference material distributed at the session. The manual includes a summary of the association's labor policy, recommendations on wage stabilization and dispute settlement, notes on wage stabilization in construction and the recent Wage Adjustment Board's interpretation of the Secretary of Labor Order No. 9240 as putting all construction work under overtime pay schedule of the O.P.M. agreement.

Wages to be adjusted

Two resolutions regarding the labor situation were passed by the meeting. One urges the national War Labor Board and the Wage Adjustment Board to set up a procedure whereby rates of pay for different classifications for each of the three types of construction—highway, heavy and building—may be established for each clearly designated geographical area in accordance with present practice and custom in the construction industry. These rates so determined shall be ceiling limits, and where lower rates have been paid such rates can be adjusted upwards to the ceiling without prior approval by the W.A.B. Such

(*Continued on next page*)

Distributors urge transfer of government construction equipment for maintenance only

A clarification of its position on the disposal of surplus government-owned construction equipment (ENR Apr. 20 p. 252) has been issued by the Associated Equipment Distributors.

In the resolution drawn up recently it was stressed that new and used machines should first be offered to other federal agencies having need for them, and second, the surpluses then remaining should be sold, not given, to non-federal tax-supported bodies, the balance thereafter to be sold through established trade channels.

The A.E.D. committee on disposal of government surplus equipment and executive officers of the association have met and now urge that transfer to federal agencies or sale to tax-supported bodies should be for maintenance purposes only.

A.E.D. is "definitely opposed" to the recurrence of WPA, CWA, FERA or any similar "alphabet" agency designed to do work by government forces and machinery. A.E.D. strongly believes that the best interests of the nation are served when construction is done by contract.

procedure, the resolution pointed out, would reduce the load on the W.A.B. now swamped with a huge backlog of cases waiting decision.

The other resolution called upon the A.G.C. chapters to actively uphold and support the wage stabilization program and the enforcement divisions thereof, to cooperate with WLB in policing the industry and to expose and oppose pressure by any individual or corporation towards payment of wages above the legal established rates. Such action, it was held, will stop pirating of employees by firms offering illegal rates.

Construction markets

The present outlook for new construction and that in the postwar era came in for much discussion. H. E. Foreman, managing director, in his report to the meeting pointed out that latest estimates place the 1944 construction volume at only 3.5 billions, the smallest since 1932. He told of the A.G.C. efforts to make certain mining, logging and petroleum operations available to contractors in lieu of the contractors giving up their equipment for such work.

Fred Rowe, chairman of the market development committee, made an extensive report on the progress of postwar construction planning. Parts of the report were discouraging. He reported that General Fleming says that out of the 60 million dollar fund available to state for highway planning only 19½ millions have been applied for and only 13 millions have been used to put under way actual surveys. Accumulated savings by individuals, by business, by state and local governments will not be sufficient to create an effective demand for construction, Mr. Rowe said. Our tax laws must be modified, he believes, to encourage private investment and to enable business concerns to do their maintenance work.

The market report summarized the status of non-federal public and private postwar construction plans for each of the 48 states. Out of a total of 11 billion dollars scheduled, only 2 billions is in the actual planning stage and plans are complete for work totaling only 958 millions.

Wm. E. Hayes, association attorney, led the contractors through the maze of federal taxes in a lengthy report. He also urged all members to study the tax situation and to take an active interest in important tax legislation.

MEETINGS

AMERICAN WATER WORKS ASSOCIATION, annual conference, Milwaukee Auditorium, Milwaukee, Wis., June 13-16.

SEVENTH NATIONAL INSTITUTE FOR WARTIME TRAFFIC TRAINING, Northwestern University, Evanston, Ill., June 19-30.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION, 52nd annual meeting, Netherland Plaza Hotel, Cincinnati, Ohio, June 22-25.

AMERICAN SOCIETY FOR TESTING MATERIALS, 47th annual meeting, Waldorf-Astoria Hotel, New York, N. Y., June 26-30.

Regional and Local Meetings

CENTRAL STATES SEWAGE WORKS ASSOCIATION, annual convention, Oshkosh, Wis., June 22-24.

SHORT COURSE FOR OPERATORS OF WATER AND SEWAGE PLANTS, Louisiana State University, Baton Rouge, La., June 28-30.

WPB makes further cut in construction materials

The War Production Board has issued a list of materials and equipment whose use it prohibits in industrial construction. However, special authority to use the prohibited items may be obtained. The prohibited items are listed in Schedule A to Controlled Materials Plan Regulation 6.

Concerning structural design, Schedule A sets forth that all construction using more than five tons of structural steel or reinforcing steel, including mesh, and using any stress-grade lumber shall be designed in accordance with the provisions of WPB Directive 8, 9 or 29, whichever is applicable. The schedule makes the following provisions:

Structural Steel—Not to be used when masonry, plain, or reinforced concrete can be employed. Junior beams are not to be used.

Steel Plates—Prohibited except for closed pressure tanks, structural connections, column bases and bearing plates, and for connections and reinforcing when used for repair and strengthening of bridges.

Steel Sheet and Strip—Plain or formed, prohibited except for bridge splash guards, culverts, concrete pile casings, floorings, joists, portable buildings, roofing and siding, smoke stacks and heavy termite shields. Ventilation and heating ducts also are prohibited with certain exceptions.

Metal Lath—In exterior use, permitted only for chases, pipe furring and wood stairways. For interior use, only in hospitals.

Aluminum—Uses of aluminum, included aluminum paint, are specified in the schedule.

Copper and Copper-Base Alloys, New or Used—Prohibited for most pipe or tubing, including fittings, and for numerous items in 34 categories of building materials, including such things as gutters, nails and rivets, roofing, and window frames and sills.

Tin—Permitted use is specified for solder, roofing, and fuses.

Zinc—Permitted only for protective coating, weatherstripping, fuse plugs, and grids in floors of hospital operating rooms.

Lumber—Use of lumber is prohibited for sheathing of walls and roofs; facing of partitions and ceilings; siding, fencing, and sub-floors. It can be used for concrete forms only if metal or used lumber forms, re-usable forms, or water resistant plywood are not available. End-grain blocks, other than those of Douglas fir, are prohibited for new flooring. Also prohibited are common grades of any wood for millwork and trim, use of hardboard and use of softwood plywood, except as noted above. It is mandatory that reusable lumber be salvaged and made available immediately for re-use in construction.

Plumbing and Heating—Metal sewer pipe outside a building is permitted only for use within 5 ft. of a building, and for vents.

Mechanical Ventilation—Permitted only for areas without natural ventilations in hospitals, industrial plants, toilets and kitchens.

Electrical Work—Uses for which rigid metallic conduit, electrical metallic tubing, flexible metallic conduit or tubing, and armored cable are permitted are specified. Exterior lighting is prohibited except when mounted on buildings, and standby and emergency equipment is prohibited.

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House committee approves new bill authorizing $1,500,000,000 for roads

Apportionment of funds for postwar highway construction is in line with legislation sponsored by state highway officials.

The House Roads Committee on June reported out a new $1,500,000,000 war roads construction bill which, the main, follows provisions of the which the committee chairman, Mr. inson of Utah, had introduced in House ten days earlier (*ENR* June 783). The new bill, H. R. 4915, introduced in the House June 1; referred to the Roads Committee; the next day was reported out.

Apportionment changed

The most important difference be- the earlier Robinson bill, H. R. and H. R. 4915 is in the method apportionment. The earlier bill ap- ioned funds for the federal-aid high- system and for secondary and er road funds on a basis of one-third for population, area, and postroad age, and funds for roads in urban s on a basis of population. The bill reported out apportions funds for type of road on the basis of one- population, and one-fourth each and postroad mileage. The latter is the same as that in the original inson bill, H. R. 2426, sponsored by American Association of State High- Officials.

The only other change from the ier Robinson bill is that its pro- n that not more than $200,000,000 mmediately available for obligation construction after the war is omitted he new bill.

State matching of funds

The matching of federal with state ds is on the basis of 60 percent fed- the first year, and 50 percent the nd and third years. The total 00,000,000 authorized would become lable at the rate of $500,000,000 a for each of the three successive war years; with $225,000,00 for the ral-aid highway system in or out- of municipalities of 10,000 or more, 000,000 for secondary and feeder s, and $150,000,000 for projects on cipal highways in urban areas on federal-aid highway system. Un- nded funds would not lapse until years after apportionment.

Provision is made for the use of one one-half percent of the funds appor- d to any state for surveys, plans, neering, and economic investiga- of projects. The federal govern- t would pay total cost of railroad e separations, but only 50 percent of right-of-way and property damage.

State forest highways get $25,000,000 a year; forest development roads and trails $12,500,000; national park roads and trails $4,250,000; and parkways $5,000,000. Though no sum is mentioned in the following connection, the Commissioner of Public Roads is authorized "to cooperate with the state highway departments and any federal agency in the location, development, construction, and maintenance of flight strips adjacent to public highways."

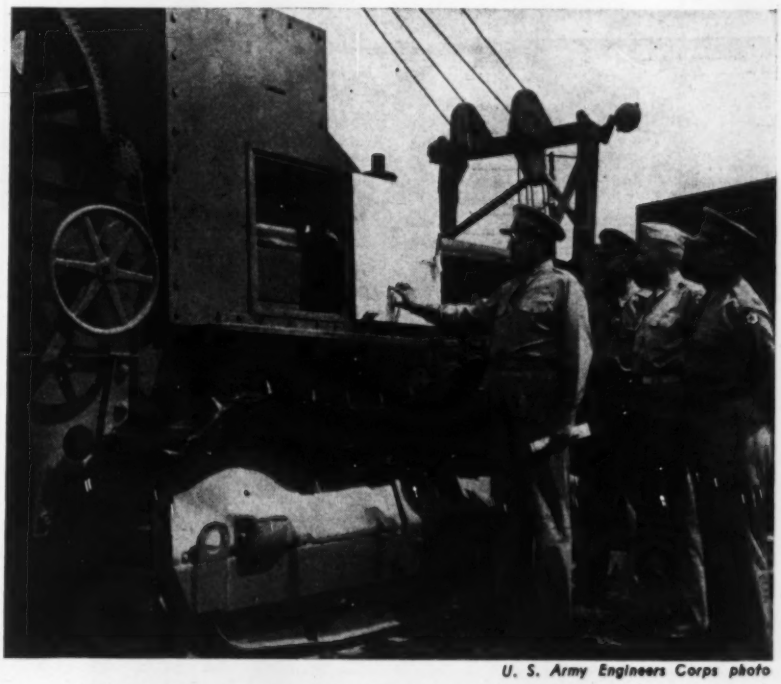
A National System of Interstate Highways—new name for the proposed Interregional Highway System—would embrace 40,000 miles, and be included in the federal-aid highway system.

$12,000,000 authorized to repair flood damage

President Roosevelt on May 29 signed an emergency measure providing $12,000,000 for the repair, restoration, and strengthening of levees and other flood-control works damaged by recent floods in the central valley of the Mississippi River and its main tributaries. The work will be carried out by the district engineers of the Army Corp of Engineers.

The main destruction was on the Missouri, Mississippi, and Illinois rivers and on tributaries of the upper Arkansas River. Of protective structures, the levees received the heaviest damage. The Army Engineers estimate that some of the smaller repair jobs can be completed in from two to three weeks, larger ones from two to six months.

A complete picture of the damage is not yet available, since the corps has authorized district engineers to start work as soon as possible, and make full reports later.



U. S. Army Engineers Corps photo

A new beach tractor is shown at Washington

Bulldozer in front and crane rigging at the rear make this unit a "beach tractor", first shown to the public at the "Weapons of War" exhibit in Washington, May 22 to 29. Pictured with the new machine are, left to right: Maj. Gen. Eugene Reybold, Chief of Engineers; Col. B. M. Harloe, Chief of Engineering Division, O. C. E.; Brig. Gen. Edwin H. Marks, Commanding, Fort Belvoir; and Brig. Gen. John W. N. Schulz, president of the Engineer Board.

The crane on the beach tractor serves the additional function of lifting loads directly from the landing craft and swinging them onto trucks or trailers. A double-action control unit on the tractor permits hooking tows on either front or rear to eliminate turning on the crowded beach.

The beach tractor has, as standard equipment, an armored cab for the protection of the driver. The bulldozer is such an important piece of equipment on the beach that the driver cannot take time to seek cover from enemy small-arms fire or bursting shrapnel.

MEN AT WOR

Work of widening several miles of pavement near Atlanta is inspected by S. P. ALLISON, construction engineer, Georgia State Highway Department.

JOHN F. LONG, graduate of Ohio State University in 1934, and for eight years with the Corps of Engineers, U. S. Army, is now serving with the armed services abroad. Long first worked for the U. S. Engineers at Rock Island, Ill., next at Houston, and more recently at Louisville.

Engineers and construction men alike were required to wear life v when working around open water while dredging the Bourg-Lar Cutoff near New Orleans—final link of the Intracoastal Waterw Supervising the dredging are, left to right: L. C. GIBBS, gene superintendent, McWilliams Dredging Co., New Orleans, who h the dredging contract; W. W. BABBIT, chief dredge inspector CHAS. S. WHITE, assistant engineer, both employed by the U. Army Engineers, New Orleans District.

For many years chief engineer of the Newport, R. I., water department, HAROLD E. WATSON is now waterworks commissioner in that city. During recent months Mr. Watson's duties were magnified by a $4,000,000 construction program to provide Newport with an auxiliary water supply.

Key men in the firm of Charles A. Maguire and Associates, Pr dence, consultants, are, left to right: CHARLES A. M GUIRE, president; WENDELL S. BROWN, chief mechanical e neer; GRANT H. POTTER, chief engineer, and FREDERICK PAULSON, chief structural engineer.

*YDE C. MacKENZIE (left), field engi-
for Charles A. Maguire and Asso-
tes, Providence, R. I., and FREDERICK
MULCAHY, project engineer for the
deral Works Agency, pause on the steps
a small pumping station built under
ir direction as part of a Newport, R. I.,
er supply project.*

*W. PUMPHREY, office engineer in the
S. Engineer Office, Memphis District,
spects the concrete inlet structure to
e new Nonconnah pumping plant com-
eted recently as part of the Memphis
od control project.*

Administrative officers of the newly organized Chicago Technical Societies Council are, standing: PAUL S. SMITH, recording secretary (left) and K. H. HOBBIE, corresponding secretary. Seated, left to right, are: G. P. HALLIWELL, treasurer; T. S. McEWAN, president and B. E. SCHAAR, vice president.

Construction of a bascule bridge on the Overseas Highway to join the Florida mainland and Key Largo has been supervised by L. S. HUCKS (left), superintendent for Cleary Bros. Construction Co., the general contractor, and M. V. MOORE, project engineer for the Florida State Road Department.

Essential tractor requirements may force requisitioning from owners

WPB eyes entire tractor-owner field to meet tractor needs of logging, mining and oil fields, though possibility of contracting auxiliary work is being considered.

A shortage of nearly 10,000 crawler tractors in the essential war production fields such as logging, mining, petroleum and food production may result in requisitioning used machines from present owners if all other means of acquisition, including higher ceiling prices, fail to produce the required units, according to the Construction Machinery Division of the War Production Board. Production of new tractors the last three-quarters of 1944 and the first quarter of next year will be 35,000 units, of which 10,932 have been allocated to non-military uses. Requirements by claimant agencies in the above fields have been placed at 20,558 machines, or 9,626 more than the number allocated.

The current inventory of used equipment maintained by the Construction Machinery Division showed 26,834 crawler tractors of all makes and sizes in the hands of contractors and distributors at the end of March. Of these, 449 were available for sale and 905 more could be rented. Many of those listed were busy on essential war work and were thus not available for sale or rental. By screening industrial concerns and governmental agencies, and through drastic classification of non-essential operations, WPB estimates only 4,000 idle machines, or those engaged in non-essential war work, can be obtained. To make up the remaining 6,000 units, requisitioning, or forced sale under the war power laws, may be necessary.

To speed up the acquisitioning program, arrangements are being made with the Defense Supplies Corp. to establish a revolving fund to purchase and maintain a current pool of 500 tractors. This will make possible immediate purchase of any tractor found available. Essential war producers can then purchase tractors to meet their critical needs from this D.S.C. pool by contacting the construction machinery specialists in WPB regional offices.

As an incentive to owners to sell tractors and other construction machines ceiling prices have been raised as related elsewhere on this page. Owners willing to sell their tractors are urged to notify their regional WPB office.

These tractors are needed primarily for roadbuilding in logging, mining and oil production, mine stripping and war food production. Realizing that contractors finishing up the war construction program now have the organization, personnel and equipment available for the type of work for which the tractors are needed, the Construction Machinery Division is urging that contractors be used wherever possible. The Associated General Contractors of America, cooperating in working out a contract program, points out that contractors, by utilizing equipment other than tractors for this work, can cut down the tractor demand.

• • •

Construction machines get price increase

Effective June 14, construction contractors can sell certain types of idle equipment at ceiling prices ranging from 5 to 25 percent higher than formerly, as the result of a new Office of Price Administration ruling. Items covered are motor graders, crawler tractors, shovels, draglines, cranes and backhoes.

Heretofore these pieces of machinery, if of later model than 1938, could not be sold at prices in excess of 55 percent of equivalent new machines, or at a price figured by a fixed depreciation method. Now machines of later model than 1938 can be sold on a graduated scale; beginning with 1939, when the ceiling price is set at 60 percent of equivalent new machinery, the price is graduated upward 5 percent for each year's model, until it reaches 80 percent for 1943 machines. For equipment manufactured earlier than 1939, the ceiling remains at 55 percent.

These prices are for equipment sold "as is". For rebuilt and guaranteed items, the ceiling continues at 85 percent of new machines. Owners, as heretofore, can sell direct to users.

Another change permits dealers to add to their ceiling sales price the cost of transportation from the point of purchase to the place of rebuilding for rebuilt and guaranteed machines. That is, they can add the cost of transportation to the 85 percent of cost of equivalent new machines, which they are already permitted to charge.

These changes are made in Amendment 117 to MPR 136, issued by OPA, June 9. They are the outcome of persistent efforts on the part of the War Production Board to provide higher ceiling prices as an incentive to owners of idle equipment to sell. E[quip]ment is needed for [mi]ning and essential purposes. The new [ru]les were developed after conferences [be]tween WPB and dealers in used equipment.

• • •

New officers named in WPB Facilities Bure[au]

John B. McTigue, recently appointed director of the Facilities Bureau of the War Production Board (*ENR*, May 4, p. 720), has announced the appointment of Richard S. Perkins as deputy director of the bureau. Mr. Perkins has been serving simultaneously as deputy director of the Production Resources Division and deputy director of the Project Essentiality Division of the WPB.

Alexander Milne, Jr., who joined the Construction Division of WPB two years ago and who, since last September, has been chief of the analysis branch of the Essentiality Division, was made deputy director of the latter.

At the same time, Richard Kimball, who since 1942 has served in the Construction Division and as deputy director of the Facilities Bureau, was made program officer of the Combined Production and Resources Board.

• • •

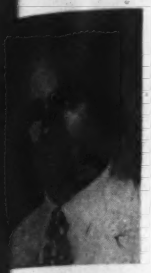
Concrete placing record claimed by Fontana Dam

What is believed to be a world record for the placement of concrete from a single plant was made at Fontana Dam by placing 241,211 cu. yards during the month of May, 1944. The concrete for Fontana Dam is mixed in a single plant consisting of four mixers each having a capacity of 4 cu. yd. Belt conveyors transport the concrete to the high construction trestle from which it is placed in the main dam by two hammerhead cranes and two whirler cranes and in the spillway section by a single whirler crane. The aggregate including sand is manufactured from rock quarried at the site.

Fontana Dam is being constructed by the Tennessee Valley Authority as an emergency war project on the Little Tennessee River about 65 miles southeast of Knoxville, Tennessee. The dam will have a maximum height of 480 ft., above foundations and will contain about 2,800,000 cu. yd. of concrete, of which 2,200,000 cu. yd. have been placed. The work is being carried out directly with TVA forces. F. C. Schlemmer is project manager, Oren Reed is project engineer and E. Murphy is construction superintendent at Fontana Dam. A. L. Pauls is chief construction engineer and C. Blee is chief engineer of the Tennessee Valley Authority.

News of the engineering schools

Gibb Gilchrist, dean of engineering at Texas Agricultural and Mechanical College at College Station, Tex., since 1937, has been elected president. He succeeds T. O. Walton. Gilchrist received his civil engineering degree from the University of Texas in 1909. Since then he has filled va-ied and important engineering posts. uring his two terms as Texas state ighway engineer, the highway system w its greatest growth. Because of his tstanding work at that post, he was lected president of the American Asso-iation of Highway Officials in 1935. e also has an outstanding record in ilroad engineering. Eight years after started as a chainman with the Santa e he became chief engineer of the Gulf oast Lines. Mr. Gilchrist is now chair-an of the Texas Postwar Planning ommittee. He has also served on spe-ial committees for the development of gricultural routes and international ighways, having been appointed by ormer Secretary of Agriculture Henry . Wallace and Secretary of State Cor-ell Hull. Under Mr. Gilchrist as dean f the engineering school of Texas Agri-ultural and Mechanical College that chool has been greatly expanded. He as also been on the directing board of he war training courses of the U. S. ffice of Education in engineering, sci-nce and management.



Honorary degrees of Doctor of Engi-eering are being conferred on two rominent Canadian civil engineers at he annual convocations of two leading anadian universities. McGill Univer-ity, Montreal, is thus honoring K. M. ameron, chief engineer of the federal epartment of public works of Ottawa. r. Cameron has just completed a year f service as president of the Engineer-ng Institute of Canada. He was gradu-ted from the Royal Military College f Canada and later took post-graduate ork at McGill University, where he ssisted for a short time on the staff. ractically all his professional life has een spent in the service of the Domin-n public works department.

The University of Toronto is similarly onoring Otto Holden, chief hydraulic ngineer of the Hydro Electric Power ommission of Ontario. Mr. Holden a graduate of the University of To-nto and has served with the Ontario Hydro since shortly after graduation. He is a past chairman of the Toronto Branch of the Engineering Institute of Canada, and has just finished a year of office as president of the Royal Canadian Institute, Canada's oldest scientific society.

A new appointment in the College of Engineering, University of Florida, was announced May 22 by John J. Tigert, president. Dr. S. J. Broderick, Yellow Springs, Ohio, was appointed research engineer. He holds degrees from the University of New Hampshire and New York University. He has been connected with the National Bureau of Standards, the Bureau of Mines, and, for the last three years, has been with the Army Air Forces at Wright Field in a civilian capacity.

An increase in the "humanistic-social" content of engineering courses at the University of Toronto, to be put into effect next session, has been announced by President H. J. Cody. All engineering students in all years will take two lecture series each term dealing with non-technical subjects, amounting to about 6 percent of the total time. Courses will include engineering and society, English, economics, political institutions, modern history, modern political trends, the philosophy of science, and a concluding group of lectures on the profession of engineering.

President Harvey N. Davis of the Stevens Institute of Technology, has announced that he wishes to devote his full time to the institute and has submitted his resignation as director of the War Production Board's Office of Production and Research. Dr. Davis asked to be relieved of his government duties to carry out a plan for putting the Stevens Institute "on a normal peacetime educational program as of July 1, with a student body of 17-year-olds." The plan which Dr. Davis hopes to start, if permitted to leave his dollar-a-year job, calls for two or three-semester courses in engineering and standard education designed for young men before they go into the armed forces.

More than 100 alumni and friends have contributed over $3,400 to a scholarship fund established to honor Prof. B. J. Lambert, retiring head of the civil engineering department at the University of Iowa, it was announced at a recent dinner celebrating Professor Lambert's seventieth birthday. Initial contributions of $500 were made by Archie A. Alexander and Maurice A. Repass, Des Moines contractors, and by Arthur J. Cox, retired Iowa City engineer, all former students. Engineering scholarship awards will be made upon faculty recommendation.

Believing that there will be an accelerated postwar demand for persons trained for technical and engineering jobs, University of Buffalo educators are preparing for a broadened work in that area. Some colleges feel that because of the drafting of men with engineering ability and because of the condensed wartime educational courses there will be a large field for highly-trained men. The University of Buffalo, however, believes that Army training work will compensate for curtailed civilian preparation and experience. The university's engineering program will be expanded from a two-year to a four-year course and an extension of facilities is regarded likely.

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Bethlehem Steel starts Venezuelan mine project

Engineers of the Bethlehem Steel Corp. and a native labor force of 600 men are constructing facilities for iron ore development in Venezuela, near the mouth of the Orinoco River. The work is being done under the direction of the Iron Mines Company of Venezuela, a subsidiary of Bethlehem Steel.

The development centers on sixteen iron mine concessions obtained by the company in the tropical jungle areas of the state of Bolivar. The mines are about 30 miles south of San Felix, a town near the confluence of the Orinoco and Caroni rivers and about 165 mi. from the coast.

Open pit and underground mining methods will be used, and the annual yield is expected to be 2,000,000 tons of high-grade hematite suitable for both blast and open-hearth steel furnace processing. The ore will be shipped to the United States.

Port works will be constructed on the Orinoco near San Felix. These include ore storage and loading facilities, a workers' village, diesel-electric power plant, a waterworks and shops. A conveyor belt system is projected for loading boats, this type of installation providing flexibility to cope with a river level variation of 40 ft. between the wet and dry seasons.

At the mines it is planned to build another town to house about 450 workers and their families. Highway and railroad facilities are being constructed between the port and the mines.

JOBS OF THE WEEK

OFFICERS RECREATION BUILDING, Patuxent River, Md.

Bureau of Yards & Docks, Navy Dept., Washington, D. C., contract awarded officers recreation building at Naval Air Station, to Irons & Reynolds, Inc., Washington, D. C., at $534,261.

EXTENDING RUNWAY, San Francisco, Calif.

U. S. Engineers, San Francisco, awarded a contract for fill for extension of runway at San Francisco Airport, San Mateo County, to Macco Construction Co., Oakland, and Morrison-Knudsen Construction Co., San Francisco at $2,013,000.

DWELLINGS, Lynwood, Calif.

Owner, care of contractor will construct 182 frame and stucco dwellings. Development Engineers, Inc., Los Angeles, will build at an estimated cost of $1,000,000.

DWELLINGS, Salt Lake City, Utah

Lembke Construction Co., Albuquerque, N. M., will construct for the American Land Co., Los Angeles, Calif., 195 frame and stucco dwellings. The cost will exceed $500,000.

HOUSING, Utica, N. Y.

Utica Housing Authority, Utica, awarded a contract to Deval Construction Co., Scarsdale, N. Y., to construct housing project at $720,580. S. A. Pennock, Utica, is the architect.

BOILER HOUSE, ROADS, GAS SYSTEM and WHARF, Oakland, Calif.

Bureau of Yards & Docks, Navy Department, Washington, D. C., awarded a contract for boiler house, roads, walks, gas distribution system and wharf at Auxiliary Air Field, Oakland, to Dinwiddie Construction Co., Inc., San Francisco, at $579,700.

ROADS, WALKS and SERVICES, El Toro, Calif.

Peter Kiewit Sons Co., Omaha, Neb., has been awarded a contract for roads, walks, and services, at Marine Corps Air Station, by Bureau of Yards & Docks, Navy Dept., Washington, D. C., at $952,158.

ENGINE TEST LABORATORY, Phila., Pa.

Bureau of Yards & Docks, Navy Dept., Washington, D. C., awarded a contract for superstructure for engine test building to Turner Construction Co., New York, N. Y., at $1,629,000. Harrison, Fouilhoux & Abramovitz, New York, N. Y., at the architects. Jaros, Baum & Bolles, New York are the engineers.

DWELLINGS, Long Beach, Calif.

Biltomore Homes, Long Beach, Calif., will construct by own forces 208 single family dwellings, San Fe Ave. and Wardlow Rd. The estimated cost is $850,000. Hugh Gibbs, Long Beach is the architect.

DWELLINGS, West Los Angeles and Santa Monica, Calif.

Construction Engineers, Inc., Los Angeles, Calif., will build 198 dwellings, by own forces. The estimated cost is $1,000,000.

POWER PLANT, Terra Haute, Ind.

Gust K. Newburg Construction Co., Chicago, Ill., has been awarded a contract for 1 story, 77x151 ft. brick, reinforced concrete power plant, unit No. 6 by Public Service of Indiana, Indianapolis, Ind. Estimated cost is $5,000,000.

GAS PIPE, California.

Southern California Gas Co., Los Angeles, Calif., awarded a contract to the Pacific Pipe Line Construction Co., for placing pipe. Trenching, placing and backfilling for 36 miles 16-in. welded steel pipe from Galeta to Ventura at $519,000; 55 miles from Ventura to North Hollywood at $573,000.

PAVING, HAMILTON FIELD, CALIF.

U. S. Engineers, San Francisco, received lowest bid for paving at Hamilton Field, from Charles L. Haney, San Francisco, at $689,826.

HOUSING, Panama City, Fla.

Public Housing Authority, Atlanta, Ga., awarded a contract for the construction of two housing project to City Construction Co., Bridgeport, Conn., at $599,000.

Note—Additional bidding and contract news on many projects large and small appear in the Construction News section beginning on page 10.

John F. Coleman dies; New Orleans consultant

John F. Coleman, nationally known authority on port development and past president of the American Society of Civil Engineers, died at New Orleans on June 3, following a long illness. Mr. Coleman was in his 78th year.

A native of Jefferson County, Miss., Mr. Coleman was educated in the public schools of New Orleans, and upon graduation from high school began work as a rodman on railroad location in Guatemala in 1884. During the following 15 years he was chiefly in railroad work including division engineer on construction of the Port Chalmette terminal for the New Orleans terminal company. After four years as principal assistant engineer for New Orleans, Mr. Coleman went into private practice, specializing largely in port and industrial development work.

Mr. Coleman was president of the American Society of Civil Engineers in 1930; five years later he was elected to honorary membership in the society.

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First water released from Friant Dam

Opening of an 84-in. needle valve at Friant Dam on June 4 to release water into the Madera Canal inaugurated the use of water stored behind the dam to irrigate lands in Central Valley of California. The Madera Canal takes water northward from Friant Dam. The more important canal, extending more than 100 miles to the southward—the Friant-Kern Canal—is yet to be built. A start on its construction was authorized by the War Production Board on May 21.

Construction of the Central Valley project is under the direction of Charles E. Carey, regional director, U. S. Bureau of Reclamation.

OBITUARY

Frederic H. Fay, 71, senior member of the civil engineering firm of Fay, Spofford and Thorndike, Boston, died at Cambridge, Mass., June 5. He had been a member of the Boston Planning Board for 20 years, and was a consultant on many federal, state, municipal, and private construction projects, including the $25,000,000 army base at South Boston in World War I. Mr. Fay, a graduate of M.I.T., was in charge of bridge design and construction in the Boston City Engineer's office from 1895 to 1914, at which time he resigned to engage in private practice. Mr. Fay was a life member of the Council of the American Institute of Consulting Engineers of which he was president in 1927. He was also a life member and former president of the Boston Society of Civil Engineers and a director of the Am. Soc. C. E.

Euclid P. Worden, 75, former chief engineer in the water-pump division of the American Water Works Construction Co., New York, died May 27 at Glen Ridge, N. J. During the first World War he was purchasing and engineering officer of the shipyards of the Port of Newark, N. J. He later was chief engineer of the Worthington Pump and Machinery Corp. at Harrison, N. J.

F. Betz, 79, early contractor and railroad builder of Sioux City, Ia., died recently at that city. He had charge of the construction of the Milwaukee road in the Dakotas and also directed hundreds of miles of railroad construction in Iowa and Nebraska.

E. M. Stewart, resident engineer at Valdez, Alaska, for the Alaska Road Commission died there May 10. He had been in Valdez for two and a half years, previously having served at Nome and Fairbanks.

Frank Leahy, 70, contractor and member of the city commission of Temple, Tex., died recently. He was builder and owner of the waterworks at Rogers, Tex.

Charles J. Rasch, 55, former engineer of the Maryland Roads Commission, died May 22. He was construction manager of the George A. Fuller Co.

William Albert Davis, 34, of San Francisco, died recently. Formerly office engineer at the Metropolitan housing project in Los Angeles, Mr. Davis was assistant editor of the *Western Construction News*. He received a degree in civil engineering from the University of Nevada and had served with the Soil Conservation Service.

William J. Foster, 38, retired civil engineer of Melrose, Fla., died May 22 at Gainsville.

Arthur C. Holzworth, 31, former zone engineer for the Belen division of the Middle Rio Grande Conservancy District and also former field engineer for the Colonial Mica Corp., in New Mexico, died recently at Hereford, Tex. He was at one time Albuquerque zone engineer for the WPA.

Irving H. Burrell, Oakland, Calif., 63, retired construction engineer, died May 24. Mr. Burrell was with the Burrell Construction Co. and its successor, California Bridge Co., for many years and served as engineer on construction projects throughout the state.

Hyman Bergman, 45, of Atlanta, Ga., for 16 years in the construction business, died recently. He was a member of Bergman, Inc., and was formerly connected with the Atwood Construction Co.

Charles S. Lincoln, 59, chief designing engineer in the crushing cement and mining machinery department of the Allis-Chalmers Mfg. Co., and with the company for 39 years, died May 24.

Mark Rose, 70, director of the Imperial Irrigation District for the past 24 years and an early day crusader for construction of Boulder Dam and the All American Canal, died May 17 in Calexico, Calif.

A. C. F. Perry, 61, Oregon assistant state engineer, since 1920, died May 21 at Salem. He was born in Short Hills, N. J., and was graduated from Columbia University School of Engineering.

Herman F. Doeleman, 69, engineer who had participated in constructing many industrial plants and office buildings in Baltimore, Md., died there May 30. Born in Holland, he was educated in the Royal Institute of Engineers at Amsterdam, he came to this country in 1893 and was with the American Bridge Co. from 1904 to 1912. In the first World War he served in the Engineer Corps with the rank of lieutenant colonel.

Roy W. Burks, engineer and director of works, Louisville, Ky., died May 23. He was engineer on the Knox sewer project during World War I, and for fourteen years was a road contractor in Kentucky, North Carolina and Michigan. As a contractor in the Detroit area prior to his appointment, Burks handled $15,000,000 worth of construction during a seven-year period.

Henry F. Alexander, 71, retired city engineer of Lorain, Ohio, and former U. S. government engineer in the Cleveland district, died in Eugene, Ore., recently. Mr. Alexander retired 18 months ago after serving Lorain for 15 years. He was government engineer from 1903 to 1906 and built several breakwaters in the Johnson and Kelley's islands districts.

William Bell Dawson, 90, founder and for 30 years head of the Dominion Tides and Currents Survey, died at Montreal, Que., May 21.

Ralph Henry Wilmarth, 54, with the U. S. Engineers at Little Rock, Ark., of United States Engineers, died May 14. He was a veteran of World War I.

Brady W. Steele, 62, veteran contractor of Houston, Tex., died April 16. Mr. Steele went to Houston in 1906 from his native Alabama. He served as regional director of the HOLC from 1933 to 1936. He also served on the board of the Houston housing authority.

Russ L. Mitchell, Sr., 58, president of the Russ Mitchell, Inc., Construction Co. of Houston, Tex., died there May 3. Mr. Mitchell was in bridge and highway construction, and, as general manager of the Hubbard-Knutson-Mitchell Construction Co., supervised construction at Camp Hulen and the San Jacinto Ordnance Depot in Texas, and the Ardmore Army Air Base at Ardmore, Okla.

WEEKLY CONSTRUCTION SUMMARY

CONTRACTS

Continental U. S. Only
(Thousands of Dollars)

	Week Ending June 10 1943	June 1 1944	June 8 1944
Federal	$51,266	$16,959	$20,706
State & Municipal	9,445	3,344	7,256
Total public	$60,711	$20,303	$27,962
Total private	8,933	2,911	14,961
TOTAL	$69,644	$23,214	$42,923

Cumulative
1944 ..... (23 weeks) $800,156
1943 ..... (23 weeks) $1,668,276

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000 other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1943 23 Weeks	1944 23 Weeks
NON-FEDERAL	$93,050	$183,833
Corp. Securities	3,571	82,599
State & Mun.	77,346	47,454
RFC Loans	9,000	53,780
FPHA Loans	3,133	.....
FEDERAL	$400,350	$245,266
TOTAL CAPITAL	$493,400	$429,099

ENR INDEX NUMBERS

Index base=100		1913	1926
Construction Cost	June '44	298.72	143.59
Building Cost	June '44	235.33	127.21
Volume	May '44	100.	.....

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.
ELSIE EAVES, Manager *SCOTT McLEOD, Statistics* *J. A. MAHONEY, Reports*
(Daily service also available—Write for details)

WATER SUPPLY

PROPOSED WORK

★**Calif., Napa**—City, City Hall, cancelled indefinitely bids to have been opened June 5, gravity sect. concrete **dam at East**side Reservoir. $800,000. CD 5/23—ENR 5/25.

Fla., Jacksonville—City, City Hall, bids soon, exten. water supply trunk pipelines in various parts of city, $106,200.

†**La., New Orleans** — R. S. Maestri, pres. Water & Sewer Bd. of New Orleans, 526 Carondelet St., water and sewer imprvs., La. 16-258 N. $463,000. **FWA.** A. B. Wood, c/o Water & Sewer Bd., supt. CD 5/23—ENR 5/25.

Tex., Bangs—Chas. Palmer, mayor, City Hall, preliminary plans water supply line addns., $100,000. Freese & Nichols, Capps Bldg. Fort Worth. engrs.

Tex., Edinburg—Central Power & Light Co., c/o W. C. Jones, mgr., 220 E. Harriman St., plans nearing completion, new sedimentation basin, chemical treat. tanks, filter beds clean well, installing new 1,000 g.p.m. pump and 2,000 g.p.m. wash pump for clearing filters. A Tinns, 107 S. 1 St., Harlingen, engr.

Tex., Sweetwater—R. C. Hoppe, city mgr., City Hall, preliminary plans WW imprs., incl. pump. equip., filter plant extens., $45,000. Freese & Nichols, Capps Bldg., Fort Worth, engrs.

Man., St. Boniface—Municipality, watermains, connections. $31,000. J. A. Bibeau, City Hall, engr.

N. S., Halifax—City Clerk, water and sewerage sys. extens. $64,000. J. M. McKinnon, c/o City, engr. CD 4/19—ENR 5/4.

N. S., Sydney—Municipality, J. MacDonald, clk., 8,500 ft. 6 and 10 in. watermain extens. $30,000. M. F. Cossitt, City Hall, engr. CD 5/4.

Que., Hull—Municipality, water sys., imprvs. $25,000. T. Lanctot, City Hall, engr.

Que., St. Jerome—Town, E. Martin, clk., sewers. $18,000. A. Morni, c/o owner, engr.

BIDS ASKED

Bids Asked June 27

†**Pa., Aspinwall (br. Pittsburgh)**—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash. 25, D. C., complete water softener and water treatment plant, at Veterans Hospital, Delafield Rd. $15,000.

†**Pa., Pittsburgh**—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash., 25, D. C., water treatment plant, Water Softener Bldg. 42.

LOW BIDDERS

La., Pineville—Bd. Comrs. Lee Heights Water Dist., Rapides Parish, May 23, water distr. line, from Littrell Contracting Co., Inc., Opelousas, **$23,762.** CD 5/17.

†**Tex., Abilene**—W. W. Hair, mayor, City Hall, May 26, Contr. 2, filtration plant imprvs., Tex. 41-657-N, from Holland Page, Georgetown Rd., Austin, **$213,989;** Contr. 3, pipelines, etc., from Glade Constr. Co., Century Bldg., Fort Worth, **$29,966.** CD 5/5—ENR 5/11.

Tex., Houston—City, 8 in. watermains in Altic St. from Polk to Harrisburg and on Fourcade St., from Hake Constr. Co., Commerce Bldg., **$16,905.**

CONTRACTS AWARDED

†**Ga., Glenville**—City, water and sewer facilities, Ga. 9-207-F, to C. A. McDaniel, Hoinesville, **$37,071. FWA.** Bids 5/24, J. B. McCrary & Co., 101 Marietta St., Atlanta, engrs. CD 4/10—ENR 4/13.

Kan., Hutchinson—City, C. D. Hyter, aud., relocating water lines at municipal airport, to Burt & Binford, 507 W. 2 St., **$16,207.**

†**Mich., Adrian**—City, rein.con. water filtration plant and pump. sta., to Bass Engineering & Construction Co., 215 Birmingham Theatre Bldg., Birmingham, **$227,000. FWA.** CD 5/5.

†**Mich., Royal Oak**—Royal Oak Twp., 5,906 ft. 16 in. c.i. watermains, connections, incl. 16 in. venturi meter, Mich. 20-334-N, to Chris Nelson Co., 415 E. Hudson St., **$42,973. FWA.** CD 5/15—ENR 5/18.

Tex., Dallas—City, water and sanitary sewer lines in El Tivoli Place addn., to Dalton & Cullum, Great National Life Bldg., **$34,459.** Est. $35,000. CD 5/24—ENR 6/1.

Symbols and Abbreviations Include:

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect-Engineer-Management type of contract

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads);
BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);
LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.
CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.
Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

Calif., Laguna Beach — City, City Hall, sanitary sewers, $35,000. J. R. L. Boyle, City Hall, city engr.

Calif., Los Angeles—City, City Hall, bids soon sanitary sewer in Centinella Ave. and Mitchell Ave. Sewer Dist. $103,067. L. Aldrich, City Hall, engr.

Calif., Los Angeles—Bd. Supervs. Los Angeles Co., Hall of Records, approx. 2,000 ft. 18- to 36-in., rein.-con. storm drain along Gage and Colmar Aves. in Bell, Cash Contr. 525. Over $25,000. O. F. Cooley, Hall of Records, Los Angeles, engr.

Calif., Los Angeles—Bd. Supervs. Los Angeles Co., Hall of Records, vitr. clay sanitary sewers in Quinn St., etc., C.I. No. 1085. Over $25,000. A. Jones, Hall of Records, engr.

†**Calif., Vallejo**—Federal Works Agency, 15 Shattuck Sq., Berkeley, sewerage sys. $347,839. W. Hahn, Jr., Vallejo, asst. surveyor Solano Co., prepared preliminary plans.

†**Ind., Fort Wayne**—City, sewers. $85,000 **FWA** gr.

La., New Orleans—Municipal Sewage & Water Bd., A. D. Wood, engr., New Orleans, sanitary sewer imprvs., extens. $265,000. Applied for FWA funds.

Mo., St. Louis—Wellston Sewer Dist., c/o A. L. Bushman, atty. for Dist., 8003 Forsythe Blvd., Clayton, St. Louis, Zone 5, filed petition with Circuit Court for construction sanitary and storm water sewerage sys., in district bounded by north limits of University City, by Curtiss Sewer Dist. south line, western limits of St. Louis and Hanley Rd. on west, in Wellston (P. O. St. Louis), $300,000. Plans application to FWA. E. A. Fulton, 3 S. Meramec Ave., Clayton, St. Louis, Zone 5, engr.

O., Youngstown—Garbage disposal incinerator. $175,000. J. C. Ryan, 37 E. Earle Ave., engr.

Tex., Galveston—Bids soon 18 in. sanitary sewer lines. $25,000.

B. C., Prince Rupert—Municipality, replacing old sanitary sewers in downtown area. $30,000. G. S. Hanes, Town Hall, engr.

Man., St. Boniface—Municipality, sewers, repairing existing sewers, pipe. $25,430. J. A. Bibeau, City Hall, engr.

N. S., Sydney—Municipality, J. Macdonald, clk., 9,500 ft. 8 and 10 in. sewer mains, $27,000. M. F. Cossitt, City Hall, engr. CD 5/4—ENR 5/11.

Ont., Orillia—Mayor, sewage plant for city and Ontario Hospital. $200,000. L. G. McNeice, c/o City, engr.

Ont., Southampton—Municipality, W. J. Saunders, clk., sewerage sys. and disposal plant. $100,000. Armstrong, Wood & Co., 62 W. Richmond St., Toronto, engrs.

Ont., Whitby—Sewer extens. $25,000. H. L. Pringle, Town Hall, engr.

Que., Hull—Municipality, sewers. $175,000. By-law to be voted by ratepayers. T. Lanctot, City Hall, engr.

BIDS ASKED

Bids Asked June 12

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, reconstructing, repairing sewer, Berry St.

Bids Asked June 14

†**S. C., Summerville**—Town, sanitary sewage collecting sys., SC 38-133 NF. **FWA.** Tomlinson Engr. Co., 1226 Sumter St., Columbia, engrs. CD 1/6—ENR 1/13.

LOW BIDDERS

†**Ala., Attalla**—City, May 25, sanitary sewer imprvs., Ala. 1-124 (NF), Div. A, from Bush Bldg. Co., 805 8 Ave. N., Nashville, Tenn., **$100,508,** Div. B, from J. E. Milam Co., 8940 1 Ave. S., Birmingham, **$132,157.** CD 5/22.

†**Ga., Atlanta**—Fulton Co., Atlanta, May 29, sanitary sewerage imprvs., from Geo. D. Smith Plumbing & Heating Co., 2299 Peachtree Rd. N.W., Atlanta, **$115,335;** sewage disposal plant, from A. Farnell Blair, Decatur, **$178,724** both Ga. 9-267. **FWA.** CD 5/23.

Md., Baltimore—Bd. Awards, City Hall, May 26, installing storm water drains, Contr. 201, from Eastern Constr. Co., 224 Albermarle St., **$36,978.** CD 5/19.

†**Mo., St. Louis County**—Melrose Sewer Dist. of St. Louis County, 4625 Ravenwood, St. Louis County, May 26, relief sewer in Melrose Sewer Dist., Jennings (St. Louis P. O.), Mo. 23-285 F, from E. J. Fischer, 4134 Westminster Pl., St. Louis, Zone 8, **$61,432. FWA.** CD 4/10—ENR 4/13.

Tex., Houston—City, c/o M. H. Westerman, secy., City Hall, May 31, 17,475 ft. 6 and 8 in. concrete sanitary sewers in Independence Heights, Eastern Section, incl. and 19,025 ft. 6 and 8 in. concrete sanitary sewers in Western Section, from Randon Constr. Co., Commerce Bldg., **$39,759** and **$45,058** respectively. CD 7/15—ENR 7/22.

CONTRACTS AWARDED

Conn., Norwich—State Comptroller, Hartford, sewer, Norwich State Hospital, to Ideal Plumbing & Heating Co., 174 Orchard St., New Haven, **$35,800.**

Tex., Houston—City, storm sewers under White Oak Dr., and Usener Blvd., to J. Heffernan, 3252 Charleston St., Houston, **$38,065.**

†**Alaska, Skagway**—E. D. McGinty, dist. engr. Federal Works Agency, Baranof Hotel Bldg., Juneau, sewer facilities, Alaska 54-